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09/997,852	11/29/2001	Meng-Hsien Liu	JCLA8054	6753

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EXAMINER

CHOWDHURY, SUMAIYA A

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/997,852	Applicant(s) LIU, MENG-HSIEN	
	Examiner Sumaiya A. Chowdhury	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

Claims 1 and 5 are objected to because of the following informalities:

In claim 1, line 6, "second and a second user" should be changed to --second and a subsequent user--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 5, and 6 rejected under 35 U.S.C. 102(b) as being anticipated by Brady (5808607).

As for claim 1, Brady discloses a video-on-demand method to reduce a network bandwidth used thereby, applied to reduce a bandwidth used for a plurality of user terminals to receive a common video information, wherein the user terminals receive the

common video information with a time difference from each other, the method comprising of:

determining whether a second and a subsequent user terminals select the common video information within the time difference - col. 5, lines 21-32, col. 7, lines 12-18;

inspecting a channel used by the first user terminal to receive the common video information and a receiving time to receive the common video when the first and second user terminals select the common video information within the time difference – col. 5, lines 56-62;

using an unused channel to output a front video information that the first user terminal has received (A subsequent viewer receives the front video information that the first viewer received on an unused channel – col. 7, lines 3-11, col. 5, lines 56-62), and recording a rear video information that the first user terminal is currently receiving at the same time (Since the data being received is from a buffer, while the second user terminal is displaying the front video information, it is recording the rear video information which the first user terminal is displaying – col. 7, lines 6-12); and

continuously receiving the recorded rear video information after the second user terminal has received the front video information (After the second user terminal receives the front video information, it receives the rear video information. Each node has several buffers which have different time segments of the movie. After receiving

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the front video segment from the buffers, the terminal then receives the rear video segment – col. 5, lines 46-52).

As for claim 5, Brady discloses wherein the unused channel is selected to output the video information directly if the second user terminal does not select a common video information as the first user terminal – (If the user does not select common video information, then the unused channel is used to output the video information selected – col. 7, lines 3-11).

As for claim 6, Brady discloses the video information includes video and audio information – col. 4, line 1.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brady in view of Kwan (5206722).

As for claim 2, Brady discloses using a video-on-demand system to perform the video-on-demand method – col. 2, lines 16-20, col. 5, lines 10-33. Even though Brady discloses the terminal receiving video data through a STB (18 – Fig. 1), he fails to explicitly disclose using a cable television video-on-demand system.

In an analogous art, Kwan discloses the CATV system provides video on demand services for the advantage of providing the subscriber to view a requested program instantly on a CATV system – col. 3, lines 25-42

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Brady's invention to include the CATV system provides video on demand services, as taught by Kwan, for the advantage of providing the subscriber to view a requested program instantly on a CATV system

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brady in view of Gardner (5583995).

As for claim 3, Brady fails to disclose using a computer network video-on-demand system to perform the video-on-demand method.

In an analogous art, Gardner discloses using a computer network video-on-demand system to perform the video-on-demand method – col. 5, lines 19-25.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Brady's invention to include using a computer network video-on-demand system to perform the video-on-demand method, as taught by Gardner, for the advantage of allowing the subscriber to request and receive data instantaneously on a computer network.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brady in view of Wang (US 2002/0042922).

As for claim 4, Brady fails to disclose using an intermediate video-on-demand system to perform the video-on-demand method.

In an analogous art, Wang discloses wherein video is reserved in analog form while the control signal is transmitted via a digital network. The video signals are initially reserved as analog program signals (AP1, AP2, AP3 – Fig. 1) and are converted into digital program signals (DP1, DP2, DP3 – Fig. 1) by the A/D converter (11 – Fig. 1) and are then compressed (CP1, CP2, CP3) for transmission through the digital network (100 – Fig. 1) - [0019]. The control signal CS1 is transmitted through the digital network – [0023].

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Brady's invention to include using an intermediate video-on-demand system to perform the video-on-demand method, as taught by Wang, for the advantage of compressing the video signal when transmitting it through the network such that less space is used.

7. Claims 8-13, 16, and 18, are rejected under 35 U.S.C. 103(a) as being unpatentable over Brady in view of Arsenault (6701528).

Claim 8 contains the limitations of claim 1 and is analyzed as previously discussed with respect to that claim. Claim 8 additionally calls for the following:

a video server (Brady, 10 – Fig. 1) to determine whether the user terminals receive the common video information within the time interval – Brady, col. 5, lines 21-32, col. 7, lines 12-18;

a display (Brady, 16 – Fig. 1) installed at each of the user terminals to output the video information selected by the user terminal – Brady, col. 3, lines 45-55; and

a set top box (Brady, 18 – Fig. 1) installed at each of the user terminals and connected to the display and the video server via a communication network (Brady, col. 3, lines 45-55),

However, Brady fails to disclose:

each of the set top boxes further comprising a plurality of tuners

receiving video information via a first tuner and second tuner.

In an analogous art, Arsenault discloses a VoD system having STBs wherein the IRDs (STBs) comprise a plurality of tuners and the IRD receives video information via the tuners – col. 14, lines 34-67.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Brady's invention to include wherein the IRDs (STBs) comprise a plurality of tuners and the IRD receives video information via the tuners, as taught by Arsenault, for the advantage of receiving additional video information simultaneously. As a result, less time is required to retrieve the video information by using multiple tuners as opposed to using a single tuner.

As for claim 9, Brady and Arsenault disclose the claimed limitation. In particular, Arsenault discloses wherein each of the set top boxes comprise of:

a row unit (204 & 206– Fig. 2), connected to the video server (102 – Fig. 1) via the communication network (100 – Fig. 1) and including the tuners (204 – Fig. 2) to divide the video information transmitted through the network into the front video information and the rear video information (The tuners receive time-staggered video programs. If there are two tuners, the first tuner receives the front video information while the second tuner receives the rear video information – col. 14, lines 32-47);

a process unit (214, 216, & 232 – Fig. 2), connected to the row unit to output the front video information and to output the rear video information (214 & 216 output the front and rear video information), wherein the stored rear video information is continuously transmitted before the front video information has been transmitted (Stored rear video information from first terminal is continuously transmitted to the second terminal before the display of the front video information of the second terminal has been completely displayed – col. 7, lines 3-12, col. 5, lines 56-62); and

a display unit, connected to the process unit and the display to output one of the front and rear video information to the display – col. 6, lines 3-10.

As for claim 10, Brady and Arsenault disclose wherein the process unit comprises:

a storage unit (232 – Fig. 2), connected to the row unit to store the rear video information transmitted by the first tuner – (Since the front video segment is pre-stored at the receiver in Arsenault's invention, the rear video segment is received by the first tuner. col. 14, lines 54-60); and

a decode unit (214, 216 – Fig. 2), connected to the row unit, the storage unit and the display unit to decode and output the front and rear video information to the display unit – col. 5, lines 40-52.

As for claim 11, Brady and Arsenault disclose wherein the display includes a television – Brady, 16 – Fig. 1, col. 3, lines 45-50.

As for claim 12, Arsenault additionally discloses the display includes a computer system for the advantage of viewing video on a computer monitor– col. 7, lines 10-12.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Brady and Arsenault's system to include a computer system, as further taught by Arsenault, for the advantage of viewing video on a computer monitor.

As for claim 13, Arsenault additionally discloses the video-on-demand system includes a cable television video-demand system. – col. 5, lines 1-6, col. 9, lines 60-62.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Brady and Arsenault's system to include the video-on-demand system includes a cable television video-demand system, as further taught by Arsenault, for the advantage of using the video-on-demand system on cable television

As for claim 16, Brady and Arsenault disclose the claimed limitation. In particular, Brady discloses wherein the video information comprises video and audio information – col. 4, lines 1-2.

As for claim 18, Brady and Arsenault disclose the claimed limitation. In particular, Brady discloses an ATM network (14 – Fig. 1). Digital packets are routed in ATM networks. Hence the communication network comprises a digital network – col. 3, lines 44-46.

8. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brady in view of Arsenault as applied to claim 8 above, and further in view of Gardner.

As for claim 14, Brady and Arsenault fail to disclose wherein the video-on-demand system includes a computer network video-demand system.

In an analogous art, Gardner discloses using a computer network video-on-demand system to perform the video-on-demand method – col. 5, lines 19-25.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Brady and Arsenault's invention to include using a computer network video-on-demand system to perform the video-on-demand method, as taught by Gardner, for the advantage of allowing the subscriber to request and receive data instantaneously on a computer network.

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brady in view of Fenwick (Re. 34,611).

As for claim 7, Brady fails to disclose:

listing an information index; and

allowing the user terminals to select the required video information among the information index.

In an analogous art, Fenwick discloses:

listing an information index (menu) and allowing the user terminals to select the required video information among the information index - col. 5, lines 35-49.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Brady's invention to include listing an information index; and allowing the user terminals to select the required video information among the information index, as taught by Fenwick, for the advantage of allowing the user to select a program or category from a visual display.

10. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brady in view Arsenault as applied to claim 8 above, and further in view of Wang.

As for claim 15, Brady and Arsenault fail to disclose wherein the video-on-demand system includes an intermediate video-demand system.

In an analogous art, Wang discloses wherein video is reserved in analog form while the control signal is transmitted via a digital network. The video signals are initially reserved as analog program signals (AP1, AP2, AP3 – Fig. 1) and are converted into digital program signals (DP1, DP2, DP3 – Fig. 1) by the A/D converter (11 – Fig. 1) and are then compressed (CP1, CP2, CP3) for transmission through the digital network (100 – Fig. 1) - [0019]. The control signal CS1 is transmitted through the digital network – [0023].

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Brady and Arsenault's invention to include using an intermediate video-on-demand system to perform the video-on-demand method, as taught by Wang, for the advantage of compressing the video signal when transmitting it through the network such that less space is used.

11. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brady and Arsenault as applied to claim 8 above, and further in view of Gatto (5905521).

As for claim 17, Brady and Arsenault fail to disclose wherein the communication network comprises an analog network.

In an analogous art, Gatto discloses wherein the communication network comprises an analog network – col. 4, lines 1-2, lines 38-42.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Brady and Arsenault's invention to include wherein the communication network comprises an analog network, as taught by Gatto, for the advantage of transmitting analog data such that software is not needed to communicate with the hardware as opposed to transmitting data digitally where software is needed to communicate with hardware.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sumaiya A. Chowdhury whose telephone number is (571) 272-8567. The examiner can normally be reached on Mon-Fri, 9-5:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Grant can be reached on (571) 272-7292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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